

Remarks

I. Introduction

Claims 1-5, 9-17, 19, 31-52, 62-63, and 74-95 are pending in this application. Claims 6-8, 18, 20-30, 53-61, and 64-73 were previously withdrawn from consideration without prejudice by Election filed on May 19, 2007. Applicant thanks the examiner for his finding that Applicant's previous remarks were persuasive in distinguishing the claims over the prior art of record and for withdrawing his previous rejections. By this amendment, claims 11, 12, 42, 74, 76, and 79 are hereby amended. Reconsideration of examiner's new grounds of rejection in view of the forgoing amendments and following remarks is respectfully requested. No new matter has been introduced by this amendment.

II. Allowable Subject Matter

Applicant thanks the examiner for the provisional indication of allowance as to claims 17, 19, 43-46 and 48-49. Applicant respectfully submits that all pending claims are in condition for allowance.

III. Claim Rejections and Objections

Claims 5, 11-12 and 75-76 stand rejected under 35 U.S.C. § 112, ¶ 2. Claims 1-5, 9-16, 31-42, 47, 50-52, 62-63, 74 and 76-95 stand rejected under 35 U.S.C. § 102(b) over Allen (5,749,372); claim 75 stands rejected under 35 U.S.C. § 103(a) over Allen in view of Muller (4,865,610). Applicant respectfully traverses the rejections.

1. With respect to the rejection of claims 5, 11-12 and 75-76 under 35 U.S.C. § 112, ¶ 2, Applicant offers the following.

With respect to the rejection of claim 5, Applicant respectfully contends that the term "means, connected to said first differentiator, for performing a second switching function" is clear and unambiguous. The "means...for performing a second switching function" is qualified in that it is "connected to said first differentiator." It is not the same "means" as recited at subparagraph d of the claim, i.e., "means, connected to said second differentiator, for performing a first switching function." Also, claim 5 depends from claim 4 and is an

apparatus claim and not a method claim and subparagraph d does not set forth a step of a method claim. Accordingly, Applicant respectfully requests withdrawal of the rejection and that the claim be allowed.

With respect to the rejection of claims 74-75, Applicant has amended the inadvertent inclusion of a comma following the word “means” in the claim to correct this typographical error. Accordingly, Applicant respectfully requests withdrawal of the rejection and that the claims be allowed..

With respect to the rejection of claims 11-12, Applicant has amended the claims to more precisely claim the additional feature of differentiating the differentiated output signal as suggested by the examiner. Accordingly, Applicant respectfully requests withdrawal of the rejection and that the claims be allowed.

2. With respect to the rejection of independent claims 1 and 62 under 35 U.S.C. § 102(b) over Allen, Applicant offers the following.

Allen fails to disclose a tilt-sensitive transducer but rather discloses an “accelerometer.” The Allen reference specification is replete with references to sensing “acceleration” and fails to disclose sensing tilt or orientation. For instance, the very recitation relied on by the examiner, col. 2, lines 60-67, clearly recites the “piezoelectric transducer device acting as a sensor of the user's *acceleration*...The device senses an *acceleration* induced by the user's activity. If a single transducer sensor is used, the monitor is most sensitive to a single plane of body motion, i.e., up and down movement.” (emphasis added). Later in the same paragraph, at col. 3, lines 1-2, Allen discloses that the “transducer arrangement is used to sense *accelerations*.” (emphasis added). Allen does not suggest much less teach sensing of tilt or orientation. The reliance on the recitation at col. 7, line 32 through col. 8, line 11 is likewise misplaced. The part identified in the specification is an accelerometer, not a tilt-sensitive transducer. The Technical publication describing this part is available online via Morgan Electro Ceramics website at <http://www.morganelectroceramics.com/pdfs/tp245.pdf>. This device produces a second derivative type output – acceleration, and does not produce a first derivative type output, e.g., tilt or orientation.

The examiner asserts that Allen's "amplifier/detector (24) connected to an analog/digital converter (22)" is a "differentiator...adapted to receive said output signal from the sensor unit (14). As described in Allen, the output of the accelerometer is amplified and fed into a standard A/D converter. The simple amplifier/detector 24 and A/D converter 22 combination is not a differentiator, the second derivative acceleration output signal from sensor 14/15 is not differentiated. The amplifier-A/D converter combination does not differentiate the output signal received from the accelerometer/sensor 14. Also, the examiner's reliance on certain recitations in the specification to "preferred orientation" of the monitor and/or sensor is misplaced as this has nothing to do with sensing tilt or orientation. In short, Allen fails to teach a tilt-sensitive transducer and fails to disclose a differentiator that receives the output from a tilt-sensitive transducer.

The points of distinction are not necessarily exhaustive and are substantive so as to make the points of novelty of independent claims 1 and 62, as well as others, non-obvious over Allen. For at least the reasons set forth above there are several points by which claims 1 and 62 are patentably distinguishable over Allen. Accordingly, Applicant respectfully submits that claims 1 and 62 are patentable over Allen. Dependent claims 2-3, as well as other remaining claims, are also patentable over Allen for at least the same reasons as stated above.

3. With respect to the rejection of independent claims 4, 9, 15, 31, 50, 81, 85 and 89 under 35 U.S.C. § 102(b) over Allen, Applicant addresses the examiner's statements and offers the following.

As discussed above in the context of claims 1 and 62, Allen's disclosure of a piezoelectric transducer used to sense acceleration is not a tilt-sensitive device and does not sense orientation. For the very reasons stated above, the amplifier-A/D converter combination of Allen does not disclose a differentiator. For these same reasons a second combination of amplifier/detector (36) and analog/digital converter (22) does not disclose a second differentiator. Neither the control unit 12 nor the user feedback sensitivity selection units 26 of Allen disclose differentiating the output signal of a transducer to perform a switching function based on rate-of-change. The accelerometer of Allen produces a second

derivative output, which is not input to a differentiator nor differentiated as claimed. Further, Allen does not teach performing a switching function in response to a predetermined velocity or rate-of-change of the output signal.

The above-raised points of distinction are not necessarily exhaustive and are substantive so as to make the points of novelty of independent claims 4, 9, 15, 31, 50, 81, 85 and 89, as well as others, non-obvious over Allen. For at least the reasons set forth above there are several points by which claims 4, 9, 15, 31, 50, 81, 85 and 89 are patentably distinguishable over Allen. Accordingly, Applicant respectfully submits that claims 4, 9, 15, 31, 50, 81, 85 and 89 are patentable over Allen. Claims that depend from these claims, as well as other remaining claims, are also patentable over Allen for at least the same reasons as stated above.

4. With respect to the rejection of independent claim 76 under 35 U.S.C. § 102(b) over Allen, Applicant addresses the examiner's statements and offers the following.

Applicant has amended claim 76 to more clearly recite the inventive features claimed. In addition to the arguments raised above, Allen fails to disclose "providing a mode of operation in which a rate of change of the output signal is below a threshold rate of change; and performing said switching function in response to the rate-of-change of said output signal exceeding said threshold rate of change."

The above-raised points of distinction are not necessarily exhaustive and are substantive so as to make the points of novelty of independent claim 76, as well as others, non-obvious over Allen. For at least the reasons set forth above there are several points by which claim 76 is patentably distinguishable over Allen. Accordingly, Applicant respectfully submits that claim 76 is patentable over Allen. Claims that depend from this claim, as well as other remaining claims, are also patentable over Allen for at least the same reasons as stated above.

5. With respect to the rejection of independent claim 63, as well as dependent claims 13-14, 32-33, 52, 74, and 92-94, under 35 U.S.C. § 102(b) over Allen, Applicant addresses the examiner's statements and offers the following.

In addition to the arguments raised above, Allen fails to disclose “a transducer that produces increasing and decreasing output signals proportional to user actuation in first and second directions; and switching function in response to a predetermined rate-of-change of said output signal produced by user actuation of said transducer in one of said directions.” Allen discloses providing a plurality of accelerometers arranged orthogonally to detect acceleration in multiple planes and does not disclose a transducer capable of producing increasing and decreasing output signals proportional to user actuation not to perform a switching function in response to a predetermined rate of change of the output signal in one of said directions.

The above-raised points of distinction are not necessarily exhaustive and are substantive so as to make the points of novelty of independent claim 63, as well as dependent claims 13-14, 32-33, 52, 74, and 92-94 and others, non-obvious over Allen. For at least the reasons set forth above there are several points by which claim 63 is patentably distinguishable over Allen. Accordingly, Applicant respectfully submits that claims 13-14, 32-33, 52, 63, 74, and 92-94 are patentable over Allen. Claims that depend from these claims, as well as other remaining claims, are also patentable over Allen for at least the same reasons as stated above.

6. Remaining dependent claims rejected under 35 U.S.C. § 102(b) over Allen, Applicant offers the following.

The remaining claims rejected under 35 U.S.C. § 102(b) over Allen are dependent on independent claims discussed above and are, for at least the reasons stated above, are novel and non-obvious over the Allen reference. In addition, claim 42 was amended to delete the reference to “proportional” to address a lack in antecedent basis. Also, claim 79 was amended to correspond to the amendments made to independent claim 76 discussed above. No new matter was added as a result of these or any other amendments made by this paper.

The above-raised points of distinction are not necessarily exhaustive and are substantive so as to make the points of novelty of the independent claims as well as all claims depending therefrom novel and non-obvious over Allen. Accordingly, Applicant respectfully submits that all pending claims 1-5, 9-17, 19, 31-52, 62-63, and 74-95 are patentable over Allen for at least the reasons as stated above.

7. With respect to the rejection of claim 75 under 35 U.S.C. § 103(a) over Allen in view of Muller, Applicant offers the following.

For at least the reasons set forth above there are several points by which claim 75 is distinguishable over the combination of Allen and Muller. Specifically, the arguments made above in the context of claim 63 apply equally to this dependent claim. Accordingly, Applicant respectfully submits that claim 75 is patentable over the combination of Allen and Muller for at least the same reasons as claim 63.

The above-raised points of distinction are not necessarily exhaustive and are substantive so as to make the points of novelty of claims 63 and 75, as well as others, non-obvious over Allen in view of Muller. For at least the reasons set forth above there are several points by which claim 75 is patentably distinguishable over Allen in view of Muller. Accordingly, Applicant respectfully submits that claim 75 is patentable over the combination and notice of allowance is respectfully requested.

IV. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request that the rejections of claims 5, 11-12 and 75-76 under 35 U.S.C. § 112, ¶ 2, claims 1-5, 9-16, 31-42, 47, 50-52, 62-63, 74 and 76-95 under 35 U.S.C. § 102(a) and the rejection of claim 75 under 35 U.S.C. § 103(a) be withdrawn. In order for a rejection under § 102 to be proper, the reference must teach each and every claim element explicitly or inherently. As set forth above, Allen fails to meet this standard. Applicant also submits that the differences between the claimed invention and the combination of Allen and Muller are so significant as to also be non-obvious under § 103.


Applicant submits that all pending claims in this application are in condition for allowance. Favorable reconsideration and prompt allowance of the claims are respectfully requested. Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below. In the

event any variance exists between the amount enclosed and the Patent Office charges, please charge or credit any difference to the undersigned's Deposit Account No. 50-4682.

Respectfully submitted,

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